

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Cancel claims 1-29.

30. (original) A method for treating Schlemm's Canal of an eye comprising inserting a flexible microcannula based microsurgical device with an outer diameter of no more than 500 microns into Schlemm's Canal and applying suction at a level of at least 4 inches of Hg.

31. (original) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the microcannula comprises one or more openings directed toward an inner radius thereof to treat specific tissues adjacent to Schlemm's Canal.

32. (original) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the microcannula additionally comprises an inner member that acts to remove tissue.

33. (currently amended) A method for treating Schlemm's Canal of an eye comprising the steps of:

- (a) inserting a ~~flexible~~ microcannula with an outer diameter of no more than 350 microns into Schlemm's Canal;
- (b) injecting a flowable material to expand at least a segment of Schlemm's Canal to facilitate microcannula access;
- (c) removing the microcannula;
- (d) inserting a microcannula based microsurgical device with an outer diameter of no more than 500 microns into the expanded segment of Schlemm's Canal;

(e) and effecting a modification in the tissues adjacent to Schlemm's Canal to increase aqueous outflow.

34. (original) The method of treating Schlemm's Canal of the eye of claim 33 wherein step (e) comprises removal of tissues from the inner wall of Schlemm's Canal.

35. (original) The method of treating Schlemm's Canal of the eye of claim 33 wherein step (e) comprises placing of an implant at least partially residing in Schlemm's Canal.

36. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the suction is applied through a lumen in the flexible microcannula.

37. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the suction is applied through a lumen in an inner member inserted through the flexible microcannula.

38. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the flexible microcannula has a curvature, and wherein the suction is applied through a lumen in the flexible microcannula that is connected to at least one opening in the flexible microcannula directed toward an inner radius of the curvature to treat tissues adjacent to an inner wall of Schlemm's Canal.

39. (new) A method for treating Schlemm's Canal of the eye as described in claim 38 further comprising:
moving an inner member with respect to the at least one opening in the flexible microcannula while the suction is applied to remove tissue intruding through the at least one opening.

40. (new) A method for treating Schlemm's Canal of the eye as described in claim 39 wherein the inner member includes a cutting element to remove tissue intruding through the at least one opening.

41. (new) A method for treating Schlemm's Canal of the eye as described in claim 39 wherein the inner member includes an abrading tool to remove tissue intruding through the at least one opening.

42. (new) A method for treating Schlemm's Canal of the eye as described in claim 39 wherein the inner member includes a sharpened distal end to remove tissue intruding through the at least one opening.

43. (new) A method for treating Schlemm's Canal of the eye as described in claim 42 wherein moving the inner member with respect to the at least one opening in the flexible microcannula while the suction is applied includes rotating the inner member to remove tissue intruding through the at least one opening.

44. (new) A method for treating Schlemm's Canal of the eye as described in claim 39 wherein the tissue removed includes at least one of the trabecular meshwork and juxtacanalicular tissues adjacent to the inner radius of Schlemm's Canal.

45. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 further comprising:
moving an inner member with respect to the flexible microcannula to cause a flap on the inner member to protrude outward through an opening in the flexible microcannula to pierce tissue adjacent to the flexible microcannula.

46. (new) A method for treating Schlemm's Canal of the eye as described in claim 38 wherein the curvature of the flexible microcannula is approximately 10-15 mm in diameter.

47. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 further comprising:
inserting an inner member through the flexible microcannula having a signaling beacon on a distal end thereof.

48. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the flexible microcannula has a plurality of lumens and the suction is applied through at least one of the lumens in the flexible microcannula.

49. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the flexible microcannula has a plurality of lumens and at least one of the lumens is connected to at least one opening in the flexible microcannula; and wherein the suction is applied through the lumen connected to the at least one opening in the flexible microcannula.

50. (new) A method for treating Schlemm's Canal of the eye as described in claim 49 wherein the flexible microcannula has a curvature, and wherein the at least one opening in the flexible microcannula is directed toward an inner radius of the curvature to treat tissues adjacent to an inner wall of Schlemm's Canal.

51. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 further comprising:
expanding an expandable member on the flexible microcannula to provide stabilization of the flexible microcannula and surrounding tissues.

52. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 further comprising:
expanding an expandable member on the flexible microcannula to apply tension to tissues surrounding the flexible microcannula.

53. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 further comprising:
expanding a first expandable member on the flexible microcannula;
expanding a second expandable member on the flexible microcannula;

moving the first expandable member with respect to the second expandable member to apply tension to tissues surrounding the flexible microcannula.

54. (new) A method for treating Schlemm's Canal of the eye as described in claim 30 wherein the flexible microcannula is inserted through at least 180 degrees of Schlemm's Canal.

55. (new) The method of treating Schlemm's Canal of the eye of claim 33 further comprising:

(f) expanding an expandable member on the microcannula based microsurgical device to provide stabilization of the microcannula based microsurgical device and surrounding tissues.

56. (new) The method of treating Schlemm's Canal of the eye of claim 33 further comprising:

(f) expanding an expandable member on the microcannula based microsurgical device to apply tension to tissues surrounding the microcannula based microsurgical device.

57. (new) The method of treating Schlemm's Canal of the eye of claim 33 further comprising:

(g) expanding a first expandable member on the microcannula based microsurgical device;

(h) expanding a second expandable member on the microcannula based microsurgical device;

(i) moving the first expandable member with respect to the second expandable member to apply tension to tissues surrounding the microcannula based microsurgical device.

58. (new) The method of treating Schlemm's Canal of the eye of claim 33 further comprising:

(j) applying a suction of at least 4 inches of Hg through the microcannula based microsurgical device.

59. (new) The method of treating Schlemm's Canal of the eye of claim 58 wherein the microcannula based microsurgical device has a curvature, and wherein the suction is applied through a lumen in the microcannula based microsurgical device that is connected to at least one opening in the microcannula based microsurgical device directed toward an inner radius of the curvature to treat tissues adjacent to an inner wall of Schlemm's Canal.

60. (new) The method of treating Schlemm's Canal of the eye of claim 59 further comprising:

(k) moving an inner member with respect to the at least one opening in the microcannula based microsurgical device while the suction is applied to remove tissue intruding through the at least one opening.

61. (new) The method of treating Schlemm's Canal of the eye of claim 60 wherein the inner member includes a cutting element to remove tissue intruding through the at least one opening.

62. (new) The method of treating Schlemm's Canal of the eye of claim 60 wherein the inner member includes an abrading tool to remove tissue intruding through the at least one opening.

63. (new) The method of treating Schlemm's Canal of the eye of claim 60 wherein the inner member includes a sharpened distal end to remove tissue intruding through the at least one opening.

64. (new) The method of treating Schlemm's Canal of the eye of claim 59 further comprising:

(k) rotating an inner member with respect to the at least one opening in the microcannula based microsurgical device while the suction is applied to remove tissue intruding through the at least one opening.